

0143-0473-6 PCT



"RESPONSE UNDER 37 CFR 1.116-  
EXPEDITED PROCEDURE EXAMINING  
GROUP 3726"

#28 / Reg. Recon  
(ne)

IN THE UNITED STATES PATENT & TRADEMARK OFFICE

IN RE APPLICATION OF: :  
Daniel CELERIER, et al. : EXAMINER: JIMENEZ, M.  
SERIAL NO.: 09/402,472 ✓ :  
RCE FILED: December 2, 2002 : GROUP ART UNIT: 3726  
FOR: INTERNAL COMBUSTION :  
ENGINE EXHAUST DEVICE :  
AND METHOD FOR MAKING :  
SAME :

RECEIVED  
APR 21 2003  
TECHNOLOGY CENTER R3700

REQUEST FOR RECONSIDERATION (AFTER FINAL)

ASSISTANT COMMISSIONER FOR PATENTS  
WASHINGTON, D.C. 20231

SIR:

In response to the Official Action dated January 16, 2003, the Applicants respectfully request favorable reconsideration of the above-identified application in light of the following discussion.

Claims 8-11, 13-16, 18, and 19 are presently active in this case.

Claim 8 was rejected under 35 U.S.C. 103(a) as being unpatentable over Reed (U.S. Patent No. 4,526,672) in view of Feher (U.S. Patent No. 3,429,171). Claims 9-11 were rejected under 35 U.S.C. 103(a) as being unpatentable over Reed in view of Feher and further in view of page 2, line 4, of the present application. Claims 13, 14, 16, 18, and 19 were rejected under 35 U.S.C. 103(a) as being unpatentable over Reed in view of Feher and Olson (U.S. Patent No. 5,984,138). Claim 15 was rejected under 35 U.S.C. 103(a) as being unpatentable over Reed in view of Feher and Olson, and further in view of page 2, line 4, of the present application.


Regarding the Declaration under 37 CFR 1.132, the Official Action indicates that there is no objective evidence on record that an art recognized problem existed for a long period of time without a solution. The Applicants respectfully disagree. The need for mounting a sensor in an exhaust pipe has existed for more than thirty years, as evidenced by U.S. Patent No. 3,874,171 to Schmidt et al., which is attached hereto for general reference.

The Schmidt et al. patent was filed in the United States on June 2, 1972, and describes an exhaust gas composition control that utilizes an oxygen sensor (22) that is located in a wall of the ducting leading from the thermo reactor (19) to the catalytic reactor (20). Numerous patents disclose similar exhaust control systems that utilize such oxygen sensors.

Several of the patents of record provide objective evidence of the long-felt problem with mounting the oxygen sensor to the exhaust pipe of an engine. The exhaust pipe is inherently thin, and therefore it is difficult to provide a mounting structure that provides stability to the threaded or other mounting structure, that is leak-resistant and that is inexpensive to manufacture. For example, U.S. Patent No. 5,832,723 to Iwata et al. describes structures in which a mounting nipple is welded to an exhaust pipe in order to form a seat for the sensor, and the associated leakage problems that can result due to heat stress on the welds.

However, the structure disclosed in the Iwata et al. reference appears to be susceptible to similar problems, and is very complex in nature and therefore costly to manufacture. U.S. Patent No. 4,437,971 to Csanitz et al. shows a mounting boss that appears to be similarly formed. The Csanitz et al. reference clearly recognizes the problem of the thin wall structure of the exhaust pipe, yet the Csanitz et al. reference appears to solve this problem by welding a seating boss to the outer surface of the exhaust pipe. Such a structure is susceptible to leakage problems due to heat stress. U.S. Patent No. 5,571,397 to Weber, which was filed over fourteen years after the Csanitz et al. reference, describes a mounting boss (5) that is

identical to the mounting boss described in the Csanitz et al. reference, and therefore suffered from the same problems. And the Iwata et al. reference is clear evidence of a failure to solve these problems.

*leakage*  
No solution to these problems were ever adequately developed in the prior art.   
Clearly a problem existed, yet no one in the art satisfied the need prior to the present invention.

The Applicants respectfully submit that the problems solved by the present invention existed in the art for more than thirty years. The Applicants respectfully submit that the objective evidence discussed above in combination with the Declaration of Alain Pierdet provides substantial rebuttal evidence of nonobviousness that clearly outweighs the obviousness rejection.

The Applicants respectfully submit that, for reasons discussed in detail in previous responses, the obviousness rejections are based on the improper application of hindsight considerations and should be withdrawn. It is well settled that it is impermissible simply to engage in hindsight reconstruction of the claimed invention, using Applicants' structure as a template and selecting elements from the references to fill in the gaps. *In re Gorman*, 933 F.2d 982, 18 USPQ2d 1885 (Fed. Cir. 1991). Recognizing, after the fact, that a modification of the prior art would provide an improvement or advantage, without suggestion thereof by the prior art, rather than dictating a conclusion of obviousness, is an indication of improper application of hindsight considerations. Simplicity and hindsight are not proper criteria for resolving obviousness. *In re Warner*, 397 F.2d 1011, 154 USPQ 173 (CCPA 1967).

Accordingly, the Applicant respectfully requests the withdrawal of the obviousness rejections of Claims 8-11, 13-16, 18, and 19.

Consequently, in view of the above discussion, it is respectfully submitted that the present application is in condition for formal allowance and an early and favorable reconsideration of this application is therefore requested.

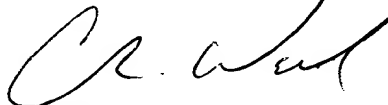
Finally, the attention of the Patent Office is directed to the change of address of Applicants' representative, effective January 6, 2003:

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Please direct all future communications to this new address.

Respectfully Submitted,

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